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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/639,198	10/15/2002	Edward L. Simonds		1573

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EXAMINER

YEUNG, JAMES C

ART UNIT PAPER NUMBER

3749

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/639,198

Applicant(s)

SIMONDS, EDWARD L.

Examiner

James C Yeung

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-32 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 11-16 is/are rejected.
- 7) ☒ Claim(s) 6-10 and 17-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The specification is replete with problems concerning numerous blanks (see pages 4-9). Appropriate correction is required. No new matter should be entered.

Claim Rejections - 35 USC § 112

2. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In claim 15, line 2, the claimed subject matter is incomplete.
- In claim 17, line 1, "17" should be changed to -- 16 --.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-3, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hourwitz.

The structure as claimed is fully anticipated by Hourwitz. In particular, Hourwitz shows in Figs.

1 and 2 a heater comprising:

- an induction chamber (12) provided with an air inlet (10);
- a combustion chamber (13") in fluid communication with the inlet (10) of the induction chamber (12) ;
- means (8) for moving an oxidizer from the inlet of the induction chamber (12) to the combustion chamber (13");
- a fuel reservoir (not shown);
- a frame and a fuel passageway (7);
- means for moving a fuel (col. 2, lines 53-56) from the fuel reservoir through the fuel passageway (7) to the combustion chamber (13");
- means (14) in fluid communication with the fuel passageway (7) for shearing a fuel prior to combustion;
- means (15 and/or col. 2, lines 60-67) in fluid communication with the fuel passageway (7) for heating a fuel prior to combustion; and
- means (4 or 32) for combusting a fuel oxidizer mixture within the combustion chamber (13").

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-5, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hourwitz in view of Kataoka.

Kataoka teaches the use of a hollow heat exchanger (17, fig. 2) for the purpose of uniformly spraying the oil along the inner surface of the hollow heat exchanger so as to obtain uniform combustion..

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the rotary oil burner of Hourwitz with a hollow heat exchanger such as taught by Kataoka in order to obtain uniform combustion.

7. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hourwitz in view of Miyahara '865.

Miyahara '865 teaches the use of a diffuser plate (103, Fig. 1) for the purpose of pressurizing a fuel and oxidizer mixture within a combustion chamber.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the rotary oil burner of Hourwitz with a diffuser plate such as

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taught by Miyahara '865 in order to pressurize the fuel and oxidizer mixture within the combustion chamber.

8. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hourwitz in view of Ray

Ray teaches the use of cooling means for the purpose of cooling a fluid passage.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the rotary oil burner of Hourwitz with cooling means such as taught by Ray in order to cool the fluid passage.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Each of MiGillis, Miyahara '415 and Japan Pat.139213 is cited to show a rotary burner.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James C Yeung whose telephone number is 703 308-1047. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JY
June 10, 2004



James C. Yeung
Primary Examiner